

AMENDMENTS TO THE CLAIMS

Please cancel claim 9 and claims 15-31 without prejudice.

Please amend claims 1, 10 and 11 as follows, wherein any additions to the amended claims are underlined and any deletions are set forth as struckthrough text or within double brackets:

1. (Currently Amended) A method for improving the operation of a remote viewing device, the method comprising:

removing at least a portion of slack from at least one control cable attached to a servo motor, the removing at least a portion of slack including at least changing a distance between the servo motor and a flexible tube termination block until a specified tension is encountered in the at least one control cable;

fixing the servo motor where the specified tension is encountered;

determining a first servo control signal value corresponding to no angular deflection in a viewing head of the remote viewing device; and

determining a second servo control signal value corresponding to a first angular deflection in the viewing head; and

increasing the viewing head's range of motion by recalibrating the operation of the remote viewing device based on at least the first servo control value and the second servo control signal value, ~~the increasing the range of motion including at least determining a second servo control signal value corresponding to a first angular deflection in the viewing head.~~

2. (Original) The method according to claim 1 further comprising determining a third servo control signal value corresponding to a second angular deflection in the viewing head of the remote viewing device.
3. (Original) The method according to claim 1 further comprising storing the value of the first and second servo control signal values in a memory of a control unit of the remote viewing device.
4. (Original) The method according to claim 1 further comprising placing a recalibration cap over the viewing head in a first position, wherein the recalibration cap in the first position fixes the viewing head in an undeflected position.
5. (Original) The method according to claim 4 wherein the determining a second servo control signal value includes:
 - placing a recalibration cap over the viewing head in a second position, wherein the recalibration cap in the second position allows the viewing head to deflect a first number of degrees; and
 - rotating the viewing head a first number of degrees until it is in contact with the recalibration cap.

6. (Original) The method according to claim 4 wherein the determining a second servo control signal value includes:

placing a recalibration cap over the viewing head in a second position, wherein the recalibration cap in the second position allows the viewing head to deflect a first number of degrees; and

rotating the viewing head until imaging optics in the viewing head view a predetermined target.

7. (Original) The method according to claim 1 further comprising placing a first recalibration cap over the viewing head, wherein the first recalibration cap fixes the viewing head in an undeflected position.

8. (Original) The method according to claim 7 wherein the determining a second servo control signal value includes:

placing a second recalibration cap over the viewing head, wherein the second recalibration cap allows the viewing head to deflect a first number of degrees; and

rotating the viewing head the first number of degrees until it is in contact with the second recalibration cap.

9. (Canceled)

10. (Currently Amended) The method according to claim 1 ~~[[9]]~~ wherein the recalibration includes changing a stroke of the servo motor.

11. (Currently Amended) The method according to claim 1 ~~[[9]]~~ wherein the recalibration includes changing a force applied by the servo motor.

12. (Original) The method according to claim 1 further comprising determining an extrapolated servo control signal value for an arbitrary deflection in the viewing head, the determining the extrapolated servo control signal value using at least the first and second servo control signal values.

13. (Original) The method according to claim 1 wherein the at least one control cable is a plurality of control cables and the determining a first servo control signal value that corresponds to no angular deflection in the viewing head of the remote viewing device includes at least equalizing tensions in the plurality of control cables.

14. (Original) The method according to claim 1 wherein the remote viewing device is one of: a borescope, a fiberscope, or an endoscope.

15. (Canceled)

16. (Canceled)

17. (Canceled)

18. (Canceled)

19. (Canceled)

20. (Canceled)

21. (Canceled)

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24. (Canceled)

25. (Canceled)

26. (Canceled)

27. (Canceled)

28. (Canceled)

29. (Canceled)

30. (Canceled)

31. (Canceled)